

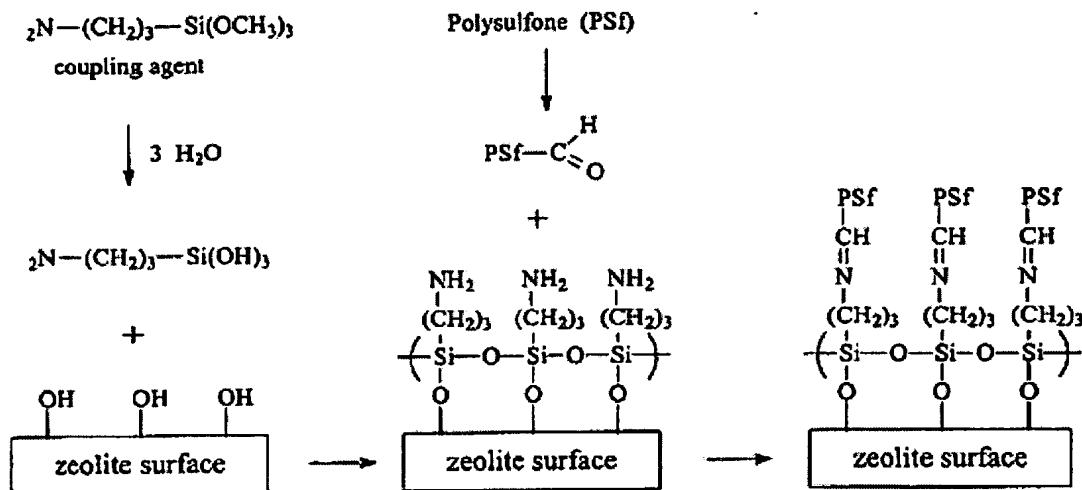
REMARKS

In each of the rejections of the Office Action of April 3, 2007, the Office relies on the disclosure of Guiver (U.S. 2002/0062737) in support of obviousness. The Office states:

“... it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed an adhesion promoter as taught by Guiver with the claimed invention of US ‘###, motivated by the expectation that this would improve the adhesion of the coating to the substrate.”

See each of the obviousness-type double patenting rejections in paragraphs nos. 3, 5, 6, 7, 9, 10, 11 in the April 30, Office Action. The Office relies on Guiver for the same rationale in the rejection of the present claims under 35 U.S.C. § 103 (see paragraph no. 13 of the April 30 Office Action).

Applicants submit that Guiver only discloses that a particular adhesion promoter-treated surface bonds to certain polymeric materials. In fact, Guiver makes it explicitly clear that the prior art polymeric material must be a polysulfone having a particular chemical structure. In this regard, Applicants draw the Office’s attention to Figure 1 of Guiver which is reproduced below for convenience.



As is readily evident from the figure of Guiver, a particular type of polysulfone must be used in order to obtain improved adhesion between the adhesion promoter-treated surface

and the polymer. The polymer must an aldehyde-containing polysulfone. Guiver even goes points out the reasons that it is necessary to use this particular polymeric material in the prior art combination:

It is believed that the aldehyde functional group of the polymer reacts with the amino group of the coupling agent which itself bonds to the zeolite surface by reaction of silyl ether with zeolite-OH as shown in the reaction scheme of FIG. 1.

See paragraph [0010] of Guiver.

It appears that the Office is expanding the teaching of Guiver to encompass any polymeric material. Applicants submit that such an interpretation of Guiver is not supported by the Guiver disclosure. In fact, Guiver makes it clear that only certain materials can provide improved adhesion in the prior art invention; namely, an aldehyde-containing polysulfone.

In contrast to the prior art's narrow teaching requiring that a certain polymeric material is used, the present claims recite a substrate that is one of the particular materials in the Markush group of Claim 1. The Office provided no explanation why any of the polymeric materials recited in Claim 1 would include the aldehyde group required by the disclosure of Guiver.

The Office has erroneously extended the disclosure of Guiver to cover all polymeric materials while, in fact, the disclosure of Guiver is limited to a particular aldehyde-containing polysulfone which is not included in the Markush group of polymeric materials recited in present Claim 1. For at least this reason the rejection is not supportable and should be withdrawn.

Applicants submit that dependent Claims 32-38 are further patentable over the prior art cited by the Office because the cited prior art does not explicitly disclose the polymeric materials recited in Claims 32-38.

Applicants draw the Office's attention to new dependent Claim 41 which recites a the flexible substrate having a first and a second coating where the first coating comprises an adhesion promoter and the second coating comprises a porous ceramic material.

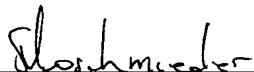
New dependent Claim 41 recites a substrate having a ceramic-containing coating. Applicants submit that Guiver, at best, teaches the opposite; namely, a zeolite surface that is coated with a polymer instead of a polymer coated with a ceramic.

The structure of the prior art composition is evident by looking at Figure 1 presented above. In Figure 1 the polymeric materials are bonded to a zeolite surface through only one point. Thus, the zeolite does not coat the polymer but instead the polymer coats the zeolite. The structure recited in Claim 41 is distinct from the structure described in Guiver and therefore the subject matter of new Claim 41 and the claims dependent from Claim 41 are further patentable over the cited prior art.

For the reasons discussed above in detail, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the mailing of a Notice of Allowance acknowledging the patentability of the presently claimed subject matter.

Respectfully submitted,

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